

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

September 22, 2008

TO: Internal File

THRU: James D. Smith, Permit Supervisor *DS 6/24/08*

FROM: Priscilla Burton, CPSSc, Environmental Scientist III *PWB by an*

RE: Bathhouse Parking Lot Expansion Amendment, CO-OP Mining Company, Bear Canyon Mine, C/015/0025, Task ID #3016, Internal File

## SUMMARY:

On May 22, 2008 the Bathhouse expansion amendment was received. On May 28, the Division responded to let the Permittee know that the amendment did not meet the Initial Review requirements (Outgoing/0016.pdf). The initial review specifically mentions a requirement to include soil descriptions, including soil type, removal, stockpiling, seeding and redistribution for final reclamation.

On July 21, 2008, the Division received a second application which refers to the following sections of the plan for information: Appendix 2-3, Section 231.100, Section 241, and Section 244.100. This amendment makes changes to the following pages and maps:

Pages 5I-7, 5I-77, 5I-78 updated Cut and Fill

7-VII, 7-109, 7-112, 7-113, 7-119, 7-135, 7G-3, 7G-4, 7G-6, G-17, 7G-22, 7G-107, 7G-108, 7G-130, 7G-131, 8-5, 8-20, 8-21, 8-27 updated calculations

Plates 2-1A, 2-2B, 2-3B, 5-2B, 5-3, 7-1B, 7-5 changed shower house parking lot boundary.

The following deficiencies were noted with this application:

**R645-301-231.100**, The plan must provide information on topsoil sampling in accordance with Table 2-4 and indicate volumes of topsoil salvaged from the expansion. [PB]

**R645-301-231.100**, South of the existing shower house pad, in DZE soils, the plan should indicate a minimum of ten inches will be salvaged. The DZE soil could

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yield satisfactory topsoil up to a 36 depth based upon previous sampling conducted at REF 2. [PB]

**R645-301-232.300**, The plan must indicate that six inches of topsoil will be salvaged from the TR soil on the slopes west of the shower house pad. [PB]

**R645-301-231.400**, The plan must describe the construction or modification of existing topsoil storage areas for placement of the topsoil salvaged. [PB]

**R645-301-121.200**, Page 8-20 of this application seems to indicate that Sediment pond A cut and fill requirements are reduced by approximately 40,000 cu yds, please explain how this expansion impacts Sediment Pond A. • Table 2-7 (page 2-34) records acreage disturbed for each reclamation area. TS 9 acreage should be updated to include this post-law disturbance. • Since the Permittee is lacking topsoil, every effort to salvage topsoil should be made and Table 2-8 should be updated with information from this expansion. [PB]

**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

Regulatory Reference: Pub. L 95-87 Section's 507(b), 508(a), and 516(b), 30 CFR 783., ET. al.

**OPERATION PLAN**

**TOPSOIL AND SUBSOIL**

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

**Analysis:**

The parking lot will expand to the west and south of the existing parking lot. Page 8-27 indicates a change of 0.4 acres in revegetation area. Plate 2-1A and Appendix 2E shows the expansion area soil types as Datino bouldery fine sandy loam, 5 to 20% slopes (DZE) and Travesilla – Rock Out Crop (TR). The Travesilla soil is shallow over sandstone on the south facing slope. Typically, the Travesilla soil has a two inch developed “A” horizon and depth to bedrock is approximately 14 inches (App. 2E). The DZE soil was previously sampled at location REF2, south of the existing pad. A developed A horizon of topsoil extends to 10 inches. Soils analysis of REF 2 is found in Appendix 2A. According to this sample information, there is no marked difference between the soils in the first ten inches and the first 36 inches. The

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Permittee may salvage 36 inches if needed to fulfill a soil reclamation deficit. The plan must indicate that the surface 10 – 36 inches will be salvaged and stored in a topsoil stockpile.

Chapter 2, Section 231.100, page 2-14 and 2-15 state that topsoil will be salvaged from all new construction, even from steep slope areas. Page 2-15 states that topsoil will be analyzed for parameters outlined in Table 2-4 and that topsoil removal and salvage will be under the direction of a qualified individual. The amendment does not provide information on the aforementioned sampling.

The amendment states in Table 5I-1 that an additional 5,000 cu yds of material will be cut to make the pad, bringing the total cut to 10,911 cu yds. Based upon the area of disturbance (0.4 acres), this appears to be a salvage depth of 7.75 feet. If six inches is salvaged from the entire area, that would yield 300 cu yds of topsoil.

**Findings:**

The information provided does not meet the Utah Coal Rules. Prior to approval, please provide the following, in accordance with:

**R645-301-231.100**, The plan must provide information on topsoil sampling in accordance with Table 2-4 and indicate volumes of topsoil salvaged from the expansion. [PB]

**R645-301-231.100**, South of the existing shower house pad, in DZE soils, the plan should indicate a minimum of ten inches will be salvaged. The DZE soil could yield satisfactory topsoil up to a 36 depth based upon previous sampling conducted at REF 2. [PB]

**R645-301-232.300**, The plan must indicate that six inches of topsoil will be salvaged from the TR soil on the slopes west of the shower house pad. [PB]

**R645-301-231.400**, The plan must describe the construction or modification of existing topsoil storage areas for placement of the topsoil salvaged. [PB]

## **RECLAMATION PLAN**

### **BACKFILLING AND GRADING**

**Analysis:****General**

Plate 2-3 B illustrate the location of reclamation area TS 9 under discussion. Table 5I-1 indicates 10,911 cu yds of cut material (double the previous volume) will approximately balance with the available fill for Reclamation Area TS 9. A small 43 cubic yard deficit will be made up with excess cut from TS5.

Other uses for fill from TS 5 are the following:

- TS 8 will require 952 cu yds of imported fill from TS 5.
- The cuts of TS 17 will be partially filled with 1,000 cu yds of material from the TS 5.
- The loadout expansion plan (App. Q) reduces the volume of salvageable substitute topsoil from the TS-5 area by 678 yd<sup>3</sup>, but Table 5I-1 indicates that there is still adequate fill to provide 1,000 yd<sup>3</sup> of material from TS-5 for use during reclamation of Wildhorse Ridge area TS-17 (as described on pages 5I-13 and 5K-7).

Mr. Mark Reynolds indicated that the Permittee will provide an update of the contemporaneous reclamation completed to date in the 2006 Annual Report (in accordance with R645-301-532.100).

Page 8-5 indicates there will be 4,008 sq yds of pavement at the bathhouse removed at final reclamation. Table 5I-8 indicates that the cut material, along with 1,200 cu yds of topsoil already removed from the bathhouse area will be used to fill in and reclaim sediment pond C upon final reclamation.

Table 2-8 indicates that 2,952 cubic yards of topsoil are required for reclamation of TS 9. As noted on Table 5I-8, 1,200 cu yds will come from the existing topsoil stockpile. If all of the disturbance associated with this small expansion is on TR soils, a six inch salvage depth over 0.4 acres would yield an additional 300 cu yds of topsoil. Since the Permittee is lacking topsoil, every effort to salvage topsoil should be made. Table 2-8 should be updated with information from this expansion.

Table 2-7 (page 2-34) records acreage disturbed for each reclamation area. TS 9 acreage should be updated to include this post-law disturbance.

Page 8-20 of this application seems to indicate that Sediment pond A cut and fill requirements are reduced by approximately 40,000 cu yds.

**Findings:**

Prior to approval, please provide the following in accordance with:

**R645-301-121.200**, Page 8-20 of this application seems to indicate that Sediment pond A cut and fill requirements are reduced by approximately 40,000 cu yds, please explain how this expansion impacts Sediment Pond A. • Table 2-7 (page 2-34) records acreage disturbed for each reclamation area. TS 9 acreage should be updated to include this post-law disturbance. • Since the Permittee is lacking topsoil, every effort to salvage topsoil should be made and Table 2-8 should be updated with information from this expansion. [PB]

**POSTMINING LAND USES**

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133, R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

**Analysis:**

The first 0.65 miles of the access road will remain as part of the County road system (see the 1983 County Agreement in Appendix 5F). The remainder of the access road is owned by C.O.P. Development and will remain in place for the post-mining recreational land use (landowner agreement App. 5F). Item #5 of this agreement (dated May 5, 2007) specifies the landowner's request for reclamation of the road: 20 ft. wide with slope no greater than 20%, and retention of asphalt.

**Findings:**

The information meets the requirements of this section of the regulations.

**RECOMMENDATIONS:**

This application should not be approved at this time.